

REMARKS

Please reconsider the present application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering the present application.

Disposition of Claims

Claims 1-14 are currently pending in the present application. Claims 1, 11, and 12 are independent claims, while claims 2-10, 13, and 14 depend, either directly or indirectly, from Claim 1. By way of this reply, claims 1, 3, 4, 11, and 12 have been amended.

Objections

The abstract of the disclosure was objected to in the Office Action because it did not adhere to the proper language and format for an abstract to the disclosure. The abstract has been amended to correct the informalities.

The Applicant thanks the Examiner for taking time to point grammatical, typographical, and designation errors in the disclosure. All of the errors cited by the Examiner in the Office Action have been corrected by the amendments. Additionally, amendments were made to claims 3 and 4 to replace "a" with "α" in order to stay consistent with the amended disclosure.

Rejections Under 35 U.S.C. § 102

Claims 1-3, 6, 11, 13, and 14 of the present application were rejected under U.S.C. § 102 (b) as being anticipated by U.S. Patent No. 6,222,689 ("Higuchi"). Additionally, claims 11 and 12 were rejected under U.S.C. § 102 (b) as being anticipated by WO 2000/41009 ("Clabburn"). In view of the amendments to claims 1, 11, and 12, this rejection is respectfully traversed.

Higuchi discloses an asymmetric prism sheet in which each of a great number of prism elements, which provide a prismatic inner face of an asymmetric prism sheet provided on

the front surface of the guide plate, comprises a first slope, facing the light incidence surface side of the guide plate, and a second slope, facing the opposite side, these slopes being repeated in alternation. Then, the inclination of the first slope and the inclination of the second slope are characterized in that they have the following two functions (routes contributing to creation of illuminating light in a substantially frontal direction).

- (1) A main ray emitted from the guide plate is led inside the asymmetric prism sheet through the first slope, and then deflected to a substantially frontal direction by internal reflection by the second slope.
- (2) A secondary ray, included in a bundle of light rays distributed at an angle around the main ray, having a larger emission angle than the main ray, is led inside the asymmetric prism sheet through the first slope, internally reflected from the second slope, and then deflected to a substantially frontal direction by further internal reflection from the first slope. (*See* lines 13-34 of column 5 in Higuchi)

Amended Claim 1 requires, in part, an optical film in which each of the diffusion patterns has, in at least one section thereof, a first inclined surface and a second inclined surface, the first inclined surface being curved and the second inclined surface being oppositely inclined to the first inclined surface, wherein incident light hitting the first inclined surface is diffused by the first inclined surface, passed through the optical film, and emitted from the prisms, and incident light hitting the second inclined surface is reflected by the prisms, and emitted from the bottom surface of the optical film. (*See* amended Claim 1 of present application)

Because the first inclined surface is curved, each parallel light incident on different positions of the first inclined surface is refracted in minutely differing directions, which allows the light directed perpendicularly with respect to the light emitting surface to have variations in their directions, thereby the device acts as a diffusion sheet in addition to its function as a conventional prism sheet. (*See* Paragraph 64 of present application)

The light incident on the second inclined surface is, after transmitting the secondary inclined surface, incident on the prism. The light is then refracted upon transmitting the prism and incident again on the optical film from the adjacent prism. Then, the light is totally reflected in the prism, whereby the optical axis thereof is directed downward, with the result that it is

emitted from the bottom surface of the optical film to thereby be returned toward the light guide plate. (See Paragraph 65 of the present application)

The surface light source device of the present invention eliminates non-uniform brightness by returning the light incident on the second inclined surface to the light guide plate as described above. Higuchi fails to disclose all the limitations as now recited in amended Claim 1. Claims 2, 3, 6, 13, and 14 depend from Claim 1.

Amended Claim 11 requires plural diffusion patterns formed on a light-incident surface, the light-incident surface being the bottom surface of the diffusion sheet, wherein each of the diffusion patterns has, in at least one section thereof, a first inclined surface and a second inclined surface, the first inclined surface being curved and the second inclined surface being oppositely inclined to the first inclined surface, wherein incident light hitting the first inclined surface is diffused by the first inclined surface and emitted from the top surface of the diffusion sheet.

Claim 11 is directed towards the diffusion sheet from Claim 1. For the same reasons given above for Claim 1, Higuchi clearly fails to disclose all the limitations in amended Claim 11. Claim 11 requires, in part, diffusion patterns with inclined surfaces on the light incident surface. (See amended Claim 11 of present application) The light diffusing sheet disclosed in Clabburn has the diffusion patterns on the light-emitting surface. (See Figure 2 in Clabburn) Additionally, light-incident surface disclosed in Clabburn lacks any inclined surfaces, and is in fact, completely flat. (See Figure 1 in Clabburn) Clabburn clearly fails to disclose all the limitations in amended Claim 11.

Claim 12 is directed towards a reflector with the plural diffusion patterns formed on the light reflecting surface. As the light is being reflected off the reflector, due to the diffusion pattern it scatters controlled inside a predetermined range, then transmits through the light guide plate and the prism sheet to thereby be vertically emitted, so that non-uniform brightness caused on the light guide plate can be reduced. Further, because light scattered by the reflector is scattered within a predetermined range, loss of light is reduced. (See Paragraph 90 of the present application) In contrary, Clabburn discloses the incorporation of a reflecting surface removed from the surface through which the light enters the assembly, causes the light, initially entering the material from below at a significant angle to the normal, to be reflected at the reflective

facets, passing through the material a second time to become more diffuse before emerging substantially on axis, that is to say emerging as a dispersing “bundle” of rays in a distribution having a maximum along the normal to the planar surface. (See lines 6-12 in page 5 of Clabburn) Clabburn clearly fails to disclose all the limitations in amended Claim 12.

Accordingly, withdrawal of this rejection is respectfully requested.

Rejection(s) Under 35 U.S.C. § 103

Claim 4 of the present application was rejected under 35 U.S.C. § 103(a) as being unpatentable over Higuchi in view of Clabburn. Claim 5 of the present application was rejected under 35 U.S.C. § 103(a) as being unpatentable over Higuchi in view of U.S. Patent No. 6,611,303 (“Lee”). Claims 7 and 8 of the present application were rejected under 35 U.S.C. § 103(a) as being unpatentable over Higuchi in view of U.S. Patent No. 6,752,505 (“Parker”). Claims 9 and 10 of the present application was rejected under 35 U.S.C. § 103(a) as being unpatentable over Higuchi in view of U. S. Patent No. 5,861,990 (“Tedesco”).

Lee is directed towards backlight device for a LCD device, Parker is directed towards light redirecting films, and Tedesco is directed towards a combined optical diffuser and light concentrator.

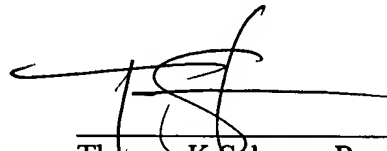
In view of the amendments, Claim 1 is now patentable over Higuchi. Clabburn, Lee, Parker, and Tedesco all fail to supply that which Higuchi lacks. Since claims 4, 5, 7, 8, 9, and 10 all depend from claim 1, they now stand allowable. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

Applicant believes this reply to be responsive to all outstanding issues and place the application in condition for allowance. If this belief is incorrect, or any other issues arise, do not hesitate to contact the undersigned or his associates at the telephone number listed below. Favorable action in the form of a Notice of Allowance is respectfully requested. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 15115.091001).

Respectfully submitted,

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